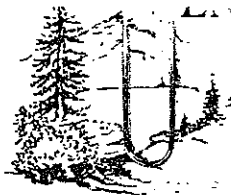


## **ATTACHMENT C**



ENVIRONMENTAL  
ASSOCIATES, INC.

Don W. Spencer, M.Sc.  
Principal

2122 - 112th Ave. N.E.  
Suite B-100  
Bellevue, WA 98004

(425) 455-9025  
FAX: (425) 455-2316

## **PHASE I ENVIRONMENTAL ASSESSMENT**

Glacier Northwest Building Supply Warehouse  
6335 First Avenue South  
Seattle, Washington 98108

**AMERICAN LIFE, INC.**

# ENVIRONMENTAL ASSOCIATES, INC.

2122 - 112th Avenue North East, Suite B-100  
Bellevue, Washington 98004  
(425) 455-9025  
FAX: (425) 455-2316

March 23, 2000

JN 20064

American Life, Inc.  
% Henry Liebman  
132 South Spokane Street  
Seattle, Washington 98134

Subject: **PHASE I ENVIRONMENTAL ASSESSMENT**  
**Glacier Northwest Building Supply Warehouse**  
**6335 1<sup>st</sup> Avenue South**  
**Seattle, Washington 98108**

Dear Mr. Liebman:

Environmental Associates, Inc. (EAI) has completed a Phase I Environmental Assessment of the subject property located in Seattle, King County, Washington. This report, prepared in accordance with the terms of our proposal dated March 9, 2000, and in a manner generally consistent with the intent and methodologies of ASTM E 1527-97, "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process," summarizes our approach to the project along with results and conclusions.

The contents of this report are confidential and are intended solely for your use and the use of your representatives. Four (4) copies of this report are being distributed to you. No other distribution or discussion of this report will take place without your prior approval in writing. Additional copies are available for a small fee.

Relying solely upon the available information reviewed or otherwise developed in the course of our study, the following conditions of potential environmental significance were identified at the property:

- Presence of asbestos containing sink undercoating and roof sealant.
- Unknown/unassessed environmental character/composition of fill material at the property from undocumented sources, possibly including material dredged from the adjacent Duwamish Waterway/Slip #2 or other "suspect" sources.



Associate Offices: Oregon / San Francisco Bay Area

*American Life, Inc.*  
*March 23, 2000*


*JN 20064*  
*Page - 2*

- Unknown/unassessed impacts (if any) relating to historic use of the property by a fuel company for a period of approximately 20 years.

Excluding the above noted conditions and/or uncertainties, and within the context of the limitations of the attached report of which this letter is a part, it would appear that the property is free from contamination by potentially hazardous, dangerous, or toxic materials. Common-sense approaches to future management or additional evaluation for the above-noted conditions are provided for your consideration in the Conclusions/Recommendations section of the attached report.

We appreciate the opportunity to be of service on this assignment. If you have any questions or if we may be of additional service, please do not hesitate to contact us.

Respectfully submitted,  
ENVIRONMENTAL ASSOCIATES, INC.



Don W. Spencer, M.Sc., P.G., R.E.A.  
Principal

EPA-Certified Asbestos Inspector/Management Planner  
I.D. # AM 48151

EPA/HUD Certified Lead Inspector (Licensed)

Registered Site Assessor/Licensed UST Supervisor  
State Certification #947458636

License: W000010 (Washington)  
License: 11464 (Oregon)  
License: 876 (California)  
License: 5195 (Illinois)  
License: 0327 (Mississippi)

**ENVIRONMENTAL ASSOCIATES, INC.**

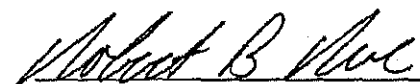
# PHASE "1" ENVIRONMENTAL ASSESSMENT

Glacier Northwest Building Supply Warehouse  
6335 First Avenue South  
Seattle, Washington 98108

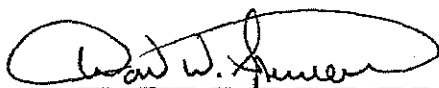
Prepared for:

American Life, Inc.  
% Henry Liebman - *MANAGING partner of AL*  
132 South Spokane Street  
Seattle, Washington 98134

Questions regarding this investigation, the conclusions reached and the recommendations given should be addressed to one of the following undersigned.

  
for William Strait, Project Manager

Environmental Scientist  
Registered Site Assessor  
EPA-Certified AHERA Building Inspector  
I.D. No. J&J981020-BIR-04



Don W. Spencer, M.Sc., P.G., R.E.A.  
Principal

EPA-Certified Asbestos Inspector/Management Planner  
I.D. # AM 48151

EPA/HUD Certified Lead Inspector (Licensed)

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License: 876 (California)  
License: 5195 (Illinois)  
License: 0327 (Mississippi)

Reference Job Number: JN 20064

March 23, 2000

ENVIRONMENTAL ASSOCIATES, INC.

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## METHODOLOGY/SCOPE OF WORK

Our study approach consisted of completing a series of investigative tasks intended to satisfy the level of effort often referred to as "due diligence" by the "innocent purchaser" in the context of the Superfund Amendment and Reauthorization Act of 1986 (SARA), and nearly identical requirements set forth in the Model Toxics Control Act (MTCA), Chapter 70.105 D (Section 040) RCW pertaining to standards of liability. The objective of a Phase I assessment is to minimize potential future liability for environmental problems by demonstrating that at the time of acquisition or refinancing, the owner, buyer, or lender had no knowledge or reason to know that any hazardous substance had been released or disposed of on, in, or at the property. As further defined by ASTM, the goal of the Phase I is to identify "recognized environmental conditions" meaning the presence or likely presence of any hazardous substances or petroleum products.

In an effort to evaluate condition and previous uses of the property in a manner consistent with good commercial and customary practice and in general accordance with methods outlined under ASTM E 1527-97, "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process," our scope of work for this study included:

- Review of chronology of ownership and site history using the resources of the King County Assessor's Office, Washington State Archives, business directories from several time periods, and aerial photography from several time periods as primary resources. This included an attempt to identify possible former industries or uses presenting some potential for generating waste which may have included dangerous or hazardous substances as defined by state and federal laws and regulations.
- Acquisition and review of available reports and other documentation pertaining to the subject site or nearby sites.
- Review of the current EPA Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS), the EPA National Priority List (NPL), the EPA Resource Conservation and Recovery Act (RCRA) Notifiers, RCRA Corrective Action Report (CORRACTS), and Emergency Response Notification System (ERNS) lists of sites which are potentially contaminated or which produce hazardous substances as a normal part of their commercial operation in the vicinity of the site.
- Review of the current Washington Department of Ecology (WDOE) listing of underground storage tanks (USTs) along with the WDOE's Leaking Underground Storage Tank (LUST) listing for WDOE-documented leaking USTs in the vicinity of the subject property.
- Review of the current WDOE Confirmed and Suspected Contaminated Sites (C&SCS) list of potentially contaminated sites which have been the subject of hazardous waste investigation and/or cleanup activity in conjunction with the Washington Model Toxics Control Act (MTCA) Chapter 173-340 WAC.
- Review of Seattle-King County Health Department and WDOE documents regarding current and abandoned landfills.

- Risk evaluation for natural-occurring radon.
- A reconnaissance of the subject property (including buildings) and neighboring areas to look for evidence of potential contamination in the form of soil stains, odors, asbestos, vegetation stress, discarded drums, discolored water, careless manufacturing or industrial practices, etc.
- Preparation of a summary report which documents the assessment process and findings.

## FINDINGS

### GENERAL DESCRIPTION

The subject property includes an irregular shaped parcel located along the west side of First Avenue South very near the First Avenue South Bridge which crosses the Duwamish Waterway. The tax parcel is identified by the King County Department of Assessments (the "assessor's office") as tax parcel 536720-4505. A map submitted to the King County Recorder's office in 1997 for a lot boundary adjustment suggests that the site includes, but is not exclusive to, lots 1 through 9 of block 34 of McLaughlin's Waterfront Addition. The western property line is defined by the top of the bank along Slip #2 of Commercial Waterway #1 (the Duwamish Waterway).

According to the assessor's office, the site includes approximately 2.55 acres (111,236 square feet) of land. Improvements to the property include a 1969-vintage, single story, concrete tilt-up, warehouse building that encloses a total of approximately 57,540 square feet of space. Two office areas with mezzanines are located in the warehouse. Additional improvements include concrete pavement on the north and west sides of the building. Currently only the warehouse is occupied by Glacier Northwest (formerly Lone Star Northwest) as a building supply warehouse. The approximate location of the site is shown on the Vicinity Map, Plate 1, appended herewith.

The approximate location of the site is shown on the Vicinity Map, Plate 1, and the Vicinity Topographic Map, Plate 2, appended herewith.

The property is located in an industrial/maritime area in the industrial heart of Seattle approximately four miles south of downtown Seattle, Washington. Photographs reflecting the character of the subject property are provided with this report as Plates 3 and 4.

A brief description of land use on nearby parcels is provided below. Plate 5, Site Plan, depicts the setting of the subject property and land use for adjacent sites.

**North:** Immediately north of the site is a concrete access drive for cement truck entering the Glacier Northwest cement plant. Northwest of the site is the aforementioned Slip #2 of the Duwamish Waterway, across which is the barge loading area of Glacier Northwest. The kilns, silos and bunkers for cement making materials lie to the northwest of the barge loading area.



- East:** The site is defined on the east by two railway franchise strips, one owned by a joint coalition of several railroads, and the other by the Port of Seattle. A single rail line is located on the right-of way. Further east is land owned by the City of Seattle for the approach and interchange of the First Avenue South Bridge over the Duwamish Waterway. The interchange is for ramps on and off of First Avenue South to South Michigan Street.
- South:** Adjacent to the site on the south is a bare soil area currently used by Glacier Northwest as an employee parking area. Farther south is a warehouse building occupied by Burgess Enterprises, a former marketer of Smokeeter® products, and designers and manufacturers of commercial espresso and food vending kiosks.
- West:** Again, to the west of the site is Slip #2 of the Duwamish Waterway and the Duwamish Waterway (see Plates 1 and 2). To the west of the waterway approximately 600 feet from the subject site is a large container shipping facility (Port of Seattle) and associated barge/ship docking and loading facilities and warehouses.

According to City of Seattle, all three parcels of the subject property are zoned IG1 U/85, an industrial zoning with a height limit of 85 feet.

### GEOLOGIC SETTING

Geographically, the subject site is situated on the floor of the moderately broad Duwamish River alluvial valley. The extensively modified Duwamish River (called the Duwamish Waterway) defines the west and southwestern portions of the property. The area around the site, including the industrial area of Seattle has, however, been extensively "modified" in the process of urbanization.

Published geologic maps for the site vicinity (Liesch et al., 1963; Galster and Laprade, 1991) suggest that much of the material underlying the subject site has been modified extensively by excavation, filling, dredging, or construction. These man-made processes have greatly modified or obscured the original geology, however, our observations of historic maps suggest that at the subject site, the eastern portions of the property may be somewhat "native" or in-place alluvial deposits possibly including silt and sand with some gravel lenses. The western portion of the property has been extensively filled, particularly west of the portion of the property that has been platted. In fact, the original plat of the property, McLaughlin's Waterfront Addition, was situated inside a broad meander of the original Duwamish River, and the western edge of the plat, including the vicinity of the subject site was the river bank. Between 1912 and 1920, the river was straightened and the former river bed filled to the northeast of the property, along South Fidalgo Street and along South River Street (see Plate 1). The original meander may also be located by Slips #2 and #3 located to the west of the site and a few hundred feet southeast of the site (see Plate 2, Vicinity Topographic Map). Materials that may underlie the site at some depth include additional alluvium and at considerable depth, possibly glacial till, a dense heterogenous mixture of silt, sand, and gravel.

Topographically, the site is situated on a level surface, approximately 10 to 12 feet above sea level. Based upon inference from topography and local drainage patterns, it appears that shallow-seated groundwater (if present) in the vicinity of the subject property may flow toward the west toward Slip #2. Please note that as a result of our work at nearby properties, it is our experience that ground water flow at properties lying along the banks of the Duwamish River is generally directly toward the river. The groundwater flow direction indicated on Plates 1 and 2 is the suspected generalized groundwater flow direction at the subject property, not necessarily the flow direction at adjacent or nearby properties.

Although no site specific information has been developed by our firm with respect to depth to groundwater at this site, our rather extensive experience in the area suggests that groundwater beneath the site may lie at a depth of approximately 5 to 10 feet beneath the ground surface. Considering that the Duwamish Waterway is tidal in the vicinity of the subject property, the depth to groundwater likely fluctuates in response to tides, and may also alter the direction of groundwater flow during certain times.

With respect to surface water resources, the Duwamish Waterway/River lies to the west of the site, flowing north and discharging into Elliott Bay at Harbor Island, approximately 2.5 miles to the north-northwest of the site.

### **DEVELOPMENT HISTORY AND LAND USE**

Sources reviewed for information on site and area development and land use included the resources of the Seattle Public Library, King County Department of Assessments (the assessor's office), Seattle Department of Construction and Land Use (DCLU), Washington State Archives, and aerial photographs of the subject property and surrounding area from several time periods.

Aerial photographs of the area were reviewed for the years 1936, 1946, 1956, 1960, 1969, 1974, 1980, 1985, 1990, and 1995. The following paragraphs provide an interpretive summary of our observations in each photo. The time interval between the various historic aerial photographs selected for this particular project is, in our opinion, entirely adequate for the intended purpose which was to permit a general assessment of overall development and land use in the vicinity of the subject property.

- 1936** The subject site appears to be situated on a "neck" of the former meander noted earlier. The former river bed to the northeast has been filled and is clearly visible since no structures are present on the filled in area. To the west, the meander has not been filled (Slip #2), and the opposing river bank is located over approximately 1,000 feet to the west, rather than the current approximately 600 feet. A large log jam is located on the north side of Slip #2. A commercial building occupied by Western Pipe and Steel Company (from historic maps) is situate north of Slip #2 at the current location of the Glacier Northwest cement plant. First Avenue South is located to the east of the site then bends westward southeast of the site crossing the Duwamish Waterway perpendicular to the

river. Several very small buildings (sheds and shacks) are located on the subject property near the waters edge. The subject site proper is considerably smaller than today, with a large portion of the property submerged beneath Slip #2. Several houseboats are moored along the east side of Slip #2 on the subject property and land to the south. The upland portion of the property is barren dirt or grass. The land to the south appears similar to the subject site. Three small buildings are situated across First Avenue South. To the west across the Duwamish River is another large log jam.

- 1946 Some filling has occurred along the west side of the site in Slip #2. Only a few of the shacks and shed remain on the site. A commercial building is visible on the southeast corner of the property. A large housing complex of the Seattle Housing Authority is now located to the northeast within the area defined by the former meander. The current Glacier Northwest concrete plant is under construction to the northwest, on land that was previously occupied by the Western Pipe and Steel Company in the 1936 aerial photograph. Immediately south of the site is a commercial building on the area which is currently used as employee parking by Glacier Northwest. What appears to be a wrecking yard is located east of First Avenue South. More buildings, some of which appear to be commercial have been constructed on the land south of the site.
- 1956 Fewer of the small sheds/shacks are visible on the site. A small building is visible near the center of the property (lot 6) along the east side. Three additional buildings are located on the west-central portion of the site near the water's edge. The former First Avenue South Bridge has been demolished, and is being rebuilt in its current configuration less the 1990s-vintage northbound addition to the east of the site. A small portion of the former wrecking yard remains to the east of the bridge. Several more commercial buildings are visible on the land immediately south of the western portion of the subject property. The land farther south appears to be commercial and residential in usage. The concrete plant to the northwest is now operational. To the east, the housing development has been largely demolished, and replaced with a few industrial and commercial buildings (motels). A few industrial properties are located west of the site across the Duwamish Waterway. Increasing industrial use is apparent in the vicinity of the site.
- 1960 All of the small sheds/shacks noted in previous photographs appear to be gone from the site. Construction of the First Avenue South bridge appears to be completed. Five commercial buildings are situated immediately south of the property, and the current Burgess Enterprises building is under construction farther south. The property east of First Avenue on the west side of the bridge is vacant.

- 1969 The western portion of the subject site has been filled to nearly the current configuration. The site has been cleared of vegetation and all of the former buildings. Four commercial buildings remain on the adjacent land to the south. The existing Burgess Enterprises building is similar to its current configuration with the shed to the west. Operations at the current Glacier Northwest cement plant have been expanded. The two current buildings across the Duwamish from the site (SeaFreeze and the commercial building) are now present.
- 1974 The current warehouse building and concrete pavement is visible on the site. The four commercial buildings are still situated to the south. The current concrete truck access drive for the concrete plant is has been paved immediately north of the site.
- 1980 & 1985 Only one of the former buildings remains on the adjacent parcel to the south of the subject site. A dock has been constructed on the northwest corner of the Burgess Enterprise property. The wrecking yard is still visible to the east of the First Avenue Bridge. A freight facility occupies the land to the west of the Duwamish River.
- 1990 All of the former buildings are gone from the parcel to the south and the unpaved area appears to be used as a parking area for cement trucks. The adjacent parcels remain similar to the 1980 and 1985 photographs.
- 1997 The subject property appears similar to our March 13, 2000 site reconnaissance. The new northbound lanes of the First Avenue South Bridge are under construction, as are the current on and off-ramps to the bridge. The former wrecking yard is gone from the east side of the bridge.

#### **PROPERTY CONVEYANCE/OWNERSHIP DATA**

From the file resources of the King County Department of Assessments, resources of the Seattle Public Library, and Washington State Archives, the following limited history of ownership has been established. Please note that due to the fact that portions of the subject property as currently defined were formerly several different tax lots, each portion of the property is described below. We refer the reader to the Site Plan, Plate 5, for the relationship between the subject property tax lots as currently defined to the locations of the subject site's Lots and Blocks of the plat of McLaughlin's Waterfront Addition:

Owner	Date of Purchase	Instrument
<b>Lots 1 through 3, Block 34</b>		
George L. Graisy	August 11, 1941	Archive records
Frank Lenei etal	May 17, 1957	Archive records
Kaiser Cement Corporation	Unknown	Assessor's records
Riedel International	September 30, 1985	WD
Christiania Bank Kreditkasse	February 18, 1986	foreclosure
Arthur Riedel	August 6, 1986	WD
Lone Star Northwest, Inc.	January 6, 1992	WD
<b>Lots 4 through 7, Block 34</b>		
Jess Peasley	February 10, 1919	Archive records
Frank Lenei etal	May 17, 1957	Archive records
Kaiser Cement Corporation	Unknown	Assessor's records
Riedel International	September 30, 1985	Warranty Deed
Christiania Bank Kreditkasse	February 18, 1986	foreclosure
Arthur Riedel	August 6, 1986	Warranty Deed
Lone Star Northwest, Inc.	January 6, 1992	Warranty Deed
<b>Lots 8 &amp; 9, Block 34</b>		
Vera K. Fischer	November 15, 1938	Archive records
Kenneth Penney (½ interest) and Edna Hansen (½ interest)	August 13, 1955	Archive records
Frank Lenei etal	July 10, 1957	Contract
Kaiser Cement Corporation	Unknown	Assessor's records
Riedel International	September 30, 1985	Warranty Deed
Christiania Bank Kreditkasse	February 18, 1986	foreclosure
Arthur Riedel	August 6, 1986	Warranty Deed
Lone Star Northwest, Inc.	January 6, 1992	Warranty Deed

Considering the information presented in the tables above, it appears that the subject property formerly consisted of several separate tax lots that were under different ownership prior to approximately 1963.

According to resources available at the Washington State Archives, it appears that lots 1 through 5 as well as lots 7 and 8 of the subject site were not developed until 1969, when the current building was constructed. However, it is clear from review of aerial photographs that some shacks/sheds may have been located on these lots prior to 1956.

Archive information reveals that lot 6 was developed with a shed (6301 1<sup>st</sup> Avenue South) prior to 1965. Review of aerial photographs and Polk street directories suggest that a commercial building may have also been located on the west side of the lot from the late 1940's until the mid to late 1960's.

Review of archive information suggests that lot 9 was developed with a commercial building (6327 and 6335 1<sup>st</sup> Avenue South) operated by the Barber Junk Company in 1943. A photograph dated 1953 indicates that junk company specialized in "wipers" and bought "all kinds of rags." This building was reportedly not heated.

Copies of the archival information are attached as Appendix A, Archive Information. Unfortunately, Sanborn Fire insurance maps dated 1929 updated through 1954, and 1919 updated through 1960 do not depict the subject property.

We also reviewed historic Baist's Real Estate Atlases dated 1908 and 1912, and Kroll Atlases of Seattle dated 1920, 1924, 1930, 1939, 1950, 1966, and mid-1970s. The 1908 Baist atlas depicts the subject site as part of the McLaughlin's Waterfront Addition, and undeveloped, with the Duwamish River in its original meandering state. The 1912 Baist atlas depicts the property similarly, with the proposed dredging and filling of the Duwamish River noted on the map.

The 1920, 1924, and 1930 Kroll Atlases depict the Duwamish River in its current configuration, with Standard Metal Company and Western Pipe and Steel located to the northwest across Slip #2. The subject site remained undeveloped. The 1939 Kroll atlas suggests that the subject property remained undeveloped and that the former Standard Metal Company and Western Pipe and Steel buildings were gone from the property across Slip #2. A Kroll Atlas dated 1950 suggests that a building was located on lot 9 of the site (6327 1<sup>st</sup> Avenue South). Another building was located immediately south of the site (6337 1<sup>st</sup> Avenue South) with two more farther south on lot 10 (6339 1<sup>st</sup> Avenue South). All of these structures were also present on the 1966 Kroll Atlas except that the building on lot 9 is listed as 6335 1<sup>st</sup> Avenue South. A second on-site building is present on lot 6 (6301 1<sup>st</sup> Avenue South). The shoreline along Block 34 is depicted as having been filled as indicated on the Site Plan, Plate 5.

We reviewed Department of Construction and Land Use (DCLU) records including Permits, Plans, and Land Use information. Addresses for the site included 6333 1<sup>st</sup> Avenue South and 6135 through 6335 1<sup>st</sup> Avenue South. A letter dated March 16, 1971, suggests that the City of Seattle, Department of Buildings had require that a Fill and Dredging permit for fill material which had been placed on the subject site. Mr. Gunnar E. Willner, responded to the City by stating that he had never placed any fill on the subject site. He also suggested that trucks, including those of the City, have used properties in the vicinity to dispose of soil and concrete without permission. In response to this letter, the City of Seattle reappraised the subject fill and stated that it was evident that the material had not been placed on the site recently, therefore, no Fill and Dredging permit would be required. A citation issued by the City of Seattle to Mr. John Farrell (owner of the property) on May 3, 1971, states that Mr. Farrell "did willfully and unlawfully, cause to be placed, or allow to be placed, fill on his property and adjacent tidelands without first obtaining a fill and grading permit.

A copy of a permit inspection report review at the DCLU revealed that two tanks were placed under pressure for 72 hours. The "north tank" is listed as a 10,000 gallon tank and the "south tank" is listed as a 6,000 gallon tank. The permit indicates that approval was given to "cover" on March 12, 1990. The use, contents, and location of these tanks are unknown. During our site reconnaissance no evidence, such as vent lines, fill ports or patches in the concrete pavement, to suggest the presence of tanks (above or below ground) was observed. Mr. Ned Pettit Environmental Manager for Glacier Northwest, informed us that he is unaware of any tanks located on the subject site. During the course of an interview with Ms. Agnus Ducay, with the City of Seattle Fire Marshall's office, she informed us that no evidence of USTs (i.e. permits, etc.) is present in their files.

We completed review of historic Polk directories dated 1938, 1948/1949, 1955, 1960, 1964, 1970, 1975, 1980, 1983, and 1994. The review was completed for addresses along 1st Avenue South. The subject site, according to archive/DCLU information, was addressed as odd numbers from 6301 through 6335 1<sup>st</sup> Avenue South. Our review of these directories is summarized in the table below. Please note that bold type in the following table indicates the subject site. Regular type indicates an adjacent or nearby property, based upon Archive/DCLU addresses.

Directory Date	Address (1st Avenue South)	Listing
1938	6305-6610	Moorings (transient)
1948-1949	6301	L Argeropulos, E. H. Armstrong, Duwamish Fuel Co.
	6302	Residence
	6303	Residence
	6305	Residence
	6309	Residence
	6313	Residence
	6321	Residence
	6324	Residence
	6325	Residence
	6327 ½	Residence
	6335	Residence
	6337	Utility Manufacturing Company
	6337 ½	Residence
	6339	Residence
	6343	Residence
1955	6301	Duwamish Fuel Company
	6302	Residence
	6305	Vacant
	6309	Residence
	6321	Residence
	6324	Residence
	6325	Residence
	6327 ½	Residence
	6335	Vacant
	6337	Residence
	6339	Utility Machine Works
	6343	Residence

Directory Date	Address (1st Avenue South)	Listing
1960	6301 6309 6321 6325 6327 ½ 6335 6339 6343 6361	Duwamish Fuel Company Residence Vacant Residence Residence Vacant Utility Machine Works, Gibson Tractor Agency Residence Under Construction
1964	6301 6309 6335 6337 6337 ½ 6339 6343 6361	Duwamish Fuel Company Vacant Vacant No return Residence Utility Machine Works, Gibson Tractor Agency Junk House Co., scrap metal, paper, and rubber Manufacturing Agents Building
1970	6331 6333 6333 ½ 6339 6343 6361	Vacant Vacant Udylite Corporation, electroplating supplies Northwest Batteries Junk House Co. Manufacturing Agents Building
1975	6331 6333 6333 ½ 6339 6343 6361	Kaiser warehouse Packers Plus, export packers Alaska Shippers, Udylite Corp., B & G Contractors Northwest Batteries Junk House Co. Manufacturing Agents Building
1980	6331 6333 6333 ½ 6335 6339 6343 6361	B. F. Goodrich (Tire Division warehouse) Beadex Manufacturing Company Puget Sound Packing & Crating Vacant Vacant Hales Construction & Associates, Inc. Manufacturing Agents Building
1983	6331 6333 6333 ½ 6335 ½ 6343 6361	Vacant Sea Klipp Fish Co. Ltd., fish processors Vacant Richmond Traffic Services, Inc. Arctic Gulf Marine, Inc. Manufacturing Agent Building
1994	6333 6335 6343 6361	Vacant Lone Star Northwest Vacant Burgess Enterprises

Borrowing from the jargon of ASTM, no "reasonably ascertainable" or "likely to be useful" information prior to approximately 1908 was available. The absence of such information has no material effect upon the conclusions of this report.



### SITE RECONNAISSANCE

An environmental engineer/EPA-certified Asbestos Building Inspector from our firm visited the property on March 13, 2000 to review on-site conditions and land use practices in the surrounding area. Mr. John Shreve of Glacier Northwest provided access to the building and grounds. The site reconnaissance was completed by a traverse across the property in accessible areas and observation of the interior of the building.

The subject property includes a 1969-vintage, concrete tilt-up, warehouse building. The roof is flat and built-up in design. Additional improvements include concrete pavement located on the north and west sides of the building and a small area south of the west side of the building. Conditions observed during our site reconnaissance included:

- Floors are bare concrete in the warehouse. The floors in the offices are covered with carpet, sheet vinyl or 12 inch square vinyl tile.
- Interior walls in the offices are painted sheetrock.
- Ceilings in the offices are suspended ceiling panels.
- Sodium vapor lights provide lighting to the warehouse. Fluorescent lighting is present in the office spaces.
- Suspended natural gas powered heat pumps provide heating to the warehouse. Electric baseboard units provide heat to the offices.
- Seventy-seven 55-gallon drums containing Caltite (concrete waterproofer), are stored on concrete in a heated area at the northeast corner of the warehouse.
- Several strip drains were noted in the floor of the building. According to Mr. Shreve, the drains were used by the former on-site fish processing operation.
- Fire sprinklers were noted throughout the building.

According to Mr. Ned Pettit, Environmental Manager for Glacier Northwest, no hazardous wastes are generated on the property in the course of business. In addition, he stated that he is unaware of any below-ground fuel storage tanks on the property. No obvious, visually discernable evidence to suggest the presence of underground fuel storage tanks (i.e., vent lines, filler caps, etc.) was noted on the property. Similarly, no water wells or groundwater monitoring wells were noted on the property. At the time of our visit, no stains, odors, or unusual vegetation conditions that might otherwise indicate the potential presence of hazardous materials were observed on the subject property.

### CHECK FOR PCB-CONTAINING MATERIALS

Prior to 1979, polychlorinated biphenyls (PCBs) were widely used in electrical equipment such as transformers, capacitors, switches, fluorescent lights (ballasts) and voltage regulators owing to their excellent cooling properties. In 1976, the EPA initiated regulation of PCBs through issues pursuant to the Toxic Substances Control Act (TSCA). These regulations generally control the use, manufacturing, storage, documentation, and disposal of PCBs. EPA eventually banned PCB use in 1978, and adoption of amendments to TSCA under Public Law 94-469 in 1979 prohibited any further manufacturing of PCBs in the United States.

<b>Light Fixtures</b>	In an effort to enhance the thoroughness of our review, we inspected representative fluorescent light ballasts in the building to ascertain if the ballast labeling addressed PCB content. Inspection of the representative lighting revealed that the ballasts were manufactured by Advance Transformer Company and were clearly labeled "No PCBs".
<b>Main Service Electrical Transformers</b>	Three main service electrical transformers were noted in a locked closet on the east side of the warehouse on a concrete floor. No certifications or labels regarding PCBs were noted on the transformers. Careful examination of the transformers revealed no cracks, staining, or other evidence of potential leakage. Liability for this equipment ultimately lies with the utility company (Seattle City Light) in any event.

### CHECK FOR ASBESTOS-CONTAINING MATERIALS

A copy of an asbestos survey report completed by others (NVL Laboratories, Inc., 1999) was provided to us by Mr. Ned Pettit. Review of the report suggests that asbestos is present in the following materials:

MATERIAL	LOCATION	Asbestos %
Pink sink, undercoating	Second floor lunch room	7
Joint compound, gypsum wallboard	toilet at north set of offices	2
Joint compound, gypsum wallboard	First floor, west room of north set of offices	2
Gray asphalt sealant	roof at heater exhaust and vent stack	10
Note: 1 - Material condition was evaluated borrowing criteria adopted under the Asbestos Hazard Emergency Response Act (AHERA), 40 CFR, part 763.		

According to the previously referenced report, a total of three samples of the joint compound and wallboard were collected. As noted above, two of the three samples obtained tested positive for asbestos in the joint compound, however the composites of these samples were below the regulated level of 1% asbestos.

At the time of our site reconnaissance the materials containing asbestos appeared to be in good condition. A copy of the asbestos survey results is included in Appendix C of this report.

## **RADON EVALUATION**

**Occurrence** Radon is a naturally occurring, highly mobile, chemically inert radioactive gas created through radioactive decay of uranium and thorium. The potential for occurrence of radon varies widely and is dependent upon (1) the concentration of radioactive materials in the underlying bedrock; (2) the relative permeability of soils with respect to gases; and (3) the amount of fracturing or faulting in surficial materials (EPA, 1987).

**Health Risks** The concern regarding radon and its potential effects upon humans arises from the results of studies (EPA, 1987) which suggest that approximately fifteen percent of all lung cancer mortalities in the United States may be attributable to exposure to radon.

The EPA has established a concentration of radon of four (4) picocuries per liter (pCi/l) as a maximum permissible concentration "action level." Concentrations above this value would signal a potential health threat. According to some studies, an average concentration in homes across the United States is on the order of 1.4 pCi/l.

**Risk of Potential Exposure in the Seattle Area** The Bonneville Power Administration (BPA) recently published the results of measurements for radon made in residences throughout the region they serve which includes Washington, Oregon and Idaho. For the Seattle area in the immediate vicinity of the subject property, 128 tests have been performed. The results of their work (BPA, 1993) suggest that radon levels over 4 pCi/l were detected in only one (0.8%) of the monitored residences in the vicinity of subject site. Additionally, the average listed radon reading in the subject site township was 1.07 pCi/l, well below the EPA threshold of concern.

On the basis of the findings presented in the cited BPA survey, we conclude that the potential for exposure to natural-occurring radon at the subject site is low.

## **WATER SUPPLY, WASTE WATER AND SOLID WASTE MANAGEMENT**

Information supplied by the Public Works Department of the City of Seattle revealed that water and sewer services are provided by the City of Seattle.

A storm drain was noted on the south side of the site. According to Mr. Ned Pettit, this water from this drain discharges into Slip #2 by way of an oil/water separator.

Two solid waste dumpsters located on concrete were noted inside of the warehouse. The dumpsters, which are maintained by Waste Management of Seattle, were relatively clean and free of overflowing debris at the time of our site reconnaissance.

### REVIEW OF WASHINGTON DOE LISTING OF UNDERGROUND STORAGE TANKS

Review of the current Washington Department of Ecology listing of underground storage tanks (USTs) suggests that two (2) facilities with registered USTs are located on adjacent sites. WDOE records reveal that no registered USTs are located on the subject property.

Map ID	Company & Address	Install year	Gal.x 1,000	Status	Contents	Hydro. Pos. <sup>1</sup>	Distance (ft) & Direction
1	Ray Burgess Co. 6361 1 <sup>st</sup> Avenue South	1966	4	RM	Leaded gas	X	Adjacent South
2	Lone Star Northwest, Inc. (cement plant) 5975 E. Marginal Way S.	1990	?	RM	Diesel	X	Adjacent North
		1990	10-20	IU	Diesel		
		1990	?	RM	Unleaded gas		
		1990	10-20	IU	Unleaded gas		

Status Code:

?

The information was not present in the WDOE database.

RM -

Removed

1 -

"Hydro. Pos." (hydrologic position) in the table refers to the position of the USTs in relation to the subject property and the probable direction of groundwater flow. Cross (X), Down (D), and Up (U) indicate gradient direction. In general, concern arises when USTs are located up-gradient from the subject property.

In April 1996, we completed a Phase I assessment of the adjacent Burgess Enterprises Building for a different client. Through the course of that work, we identified the presence of an approximately 4,000 gallon UST containing gasoline at that adjacent property, which was reportedly installed in 1966. In March 1991, O'Sullivan Construction removed the UST and obtained four excavation sidewall samples and two samples from the base of the UST excavation. Laboratory analysis of the composited bottom samples, the composite sample of the west, east and south sidewalls, and the (discrete) north sidewall sample for the presence of diesel and oil boiling range hydrocarbons in accordance with EPA Method 418.1, and for gasoline constituents benzene, ethylbenzene, toluene and xylenes (BTEX) in accordance with EPA Method 3810 (headspace method) revealed that all of the constituents were present below the detection limits for the analyses, which were below the current cleanup levels for petroleum hydrocarbons and BTEX constituents. It would therefore appear that the potential for impacts to the subject property from this adjacent former UST site would be low. The UST was reportedly located at the west end of the Burgess Enterprises warehouse as depicted on the Site Plan, Plate 5.

According to the most recent WDOE Leaking Underground Storage Tank (LUST) listing, thirteen (13) tank facilities located within an approximately one-half mile radius of the subject property have reported accidental releases or leakage to the WDOE in the past. Of these twelve, three (3) are located across the Duwamish Waterway from the subject property, and present no potential for impacts to the subject site due to the presence of the Duwamish Waterway between these LUST sites and the subject property, and are not discussed in detail.

- 2) Lone Star Northwest, Inc. (current Glacier Northwest cement plant), located at 5975 East Marginal Way South, is listed as a site of contaminated soil and surface water. The WDOE lists the status for this site as "cleanup started." During the course of a conversation with Mr. Ned Pettit, we were informed that the USTs for the adjacent Lone Star Northwest cement plant are located north of the batch plant, approximately 500 feet north of the site across Slip #2. He also stated that contaminated soil was encountered during the removal to the two former tanks which was subsequently excavated. The two current USTs were placed back into the tank excavation following the soil remediation activity. According to Mr. Pettit, these two remaining tanks are regularly monitored and no leaks have been identified. Considering this information and the inferred cross-gradient hydrologic position of the USTs in relationship to the subject property it would appear that the potential for impacts to the subject property from this LUST site would be low.
- 3) WDOT River Street at 170 South River Street, reported a release in August 1992 impacting soil only. WDOE records suggest that cleanup has been started on the release. This site is hydrologically cross-gradient in relation to the subject property approximately 800 feet to the south-southeast. For information regarding the general vicinity of this property, we refer the reader to the information provided in next paragraph regarding the Carmody Property, which lies less than 100 feet east from this site. Groundwater at this facility is suspected to flow southerly, similar to the direction of groundwater flow we have measured at the Carmody Property as discussed immediately below.
- 4) The WF Carmody Property, 220 South River Street, reported a release impacting soil and groundwater to the WDOE in 1998. According to WDOE database information, cleanup has reportedly begun at the site. Through our work at this property for a different client within the last two years, it appears that three (3) 1,000 gallon capacity USTs were located at this site, along with two floor drains, an above-ground tank, and questionable storage/handling of petroleum products. Environmental Associates, Inc., completed removal of the USTs, excavation of petroleum impacted soils surrounding the USTs, along with excavation of surficial stained soils, and removal of the floor drains and associated petroleum impacted soil. We also observed lawful removal/disposal of miscellaneous containers containing petroleum products. A total of approximately 638 tons of petroleum impacted soils were removed from this property, although petroleum impacted soil remains at the property along and underneath a structure at this property. Following soil cleanup, four monitoring wells were installed at the facility to document groundwater quality at the property. The results of several quarterly sampling events reveals that since excavation of petroleum impacted soil at the site, groundwater quality has steadily improved, and during our most recent well sampling and testing event on October 22, 1999, concentrations of petroleum hydrocarbons and associated gasoline constituents are compatible with the Method A cleanup guidelines published in the Model Toxics Control Act (MTCA), Chapter 173-340 WAC. Additionally, groundwater flow at this site is toward the south, toward Slip #3, and not toward the subject property. This site is hydrologically cross-gradient in relation to the subject property approximately 1,200 feet to the southeast.

- 5) Michigan Street Shell (Gas N Wash), 551 South Michigan Street reported a release impacting soil only in June 1994. Cleanup has reportedly commenced. This site is hydrologically up- to cross-gradient in relation to the subject property approximately 1,550 feet to the east.
- 6) Texaco #63-232-0400, 600 South Michigan Street reported a release impacting soil and groundwater in March 1994. Cleanup is reportedly underway. This site is hydrologically up- to cross-gradient in relation to the subject property approximately 2,480 feet to the east.
- 7) Consolidated Freightways, 6050 East Marginal Way South, reported a release impacting soil and groundwater to the WDOE in 1995, with cleanup reported to be underway. This site is hydrologically cross-gradient in relation to the subject property approximately 1,150 feet to the north.
- 8) Air Data Express (Western Parcel Express), 525 South Front Street, reported a release impacting soil only in March 1999, and WDOE is awaiting a cleanup report. This site is hydrologically up-gradient in relation to the subject property approximately 1,550 feet to the east.
- 9) Western Bridge Company (Mobile Crane), 5900 2<sup>nd</sup> Avenue South, reported a release impacting soil and groundwater to the WDOE in March 1995. WDOE is currently awaiting a cleanup report. This site is hydrologically cross-gradient in relation to the subject property approximately 1,400 feet to the northeast.
- 10) Great Western Chemical, 6900 Fox Avenue South, reported a release impacting soil only to the WDOE in May 1990, and cleanup is reportedly underway. This site is hydrologically cross-gradient in relation to the subject property approximately 2,600 feet to the southeast.
- 11) PTL Partnership (Peninsula Truck Lines), 6314 7<sup>th</sup> Avenue South, reported a release impacting soil only in August 1989. Cleanup is underway. This site is hydrologically up-gradient in relation to the subject property approximately 2,600 feet to the east.

The following three sites are located across the Duwamish Waterway from the subject property and present no potential for impacts to the subject property, due to the present of the Duwamish Waterway between these sites and the subject property (i.e. these sites are not "hydrologically connected" to the subject property).

- 12) Terminal 115 (Port of Seattle), 6020-6730 West Marginal Way Southwest, reports impacts to soil and groundwater.
- 13) Alaska Marine Lines (shipyard), 7100 2<sup>nd</sup> Avenue Southwest, reports impacts to soil and groundwater.

- 14) James Washington Stevedoring Co., 7245 West Marginal Way Southwest, reported impacts to soil in October 1994. The site has reportedly been cleaned up.

With regard to the LUST sites identified as numbers 3, 4, 5, 6, 7, 8, 9, 10, and 11, it would appear that the large separation distances in relation to the subject property would be a positive risk-mitigating factor, and it is therefore our opinion that the potential for environmental impairment of the subject property from these sources is very low. Site 2 was previously discussed as being very low potential risk. Sites 12, 13, and 14 are separated and thus present no risk to this site. The approximate locations of the WDOE-documented underground storage tanks noted above are indicated on the Vicinity Map attached to this report as Plate 1, with their locations identified by the Map ID number given in the table and/or paragraphs above.

### EPA & STATE RECORDS OF POTENTIALLY HAZARDOUS SITES

**Superfund  
and NPL**

Review of the current EPA Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) and National Priority List (NPL) listings revealed one (1) CERCLIS and no NPL sites within approximately one mile of the subject property that have been designated as potentially hazardous or eligible for participation in the Superfund cleanup program. The CERCLIS site, which is a properties which has been designated as a potential Superfund cleanup candidate, is listed below

- 15) The Lower Duwamish River, River Kilometer 5.5, is approximately the portion of the Duwamish Waterway off of Terminal 115 northwest of the subject property. The site was first identified as a potential Superfund site in March 1998, and investigations have been on-going since that time. This site is hydrologically down-gradient in relation to the subject property approximately 600 feet to the northwest.

The location of the River Kilometer 5.5 CERCLIS site is indicated on the Vicinity Map, Plate 1, by the red and green circular symbol, and is identified by the number preceding the site above.

In addition to the above-noted CERCLIS site, we briefly reviewed a report in the offices of Glacier Northwest completed by Weston dated April 1999 entitled "Site Inspection Report, Lower Duwamish River, River Kilometer 2.5 to 11.5, Seattle Washington," which was prepared as a part of the above-noted CERCLIS site. The report appears to have been provided to property owners adjacent to the Duwamish River/Waterway. The report documented sediment sampling in the Duwamish River/Waterway for the presence of polynuclear aromatic hydrocarbons (PAHs), PCBs, metals and pesticides and other contaminants. Briefly summarizing the report as it applies to the subject property vicinity, it appears that six sampling locations were situated within Slip #2. Sediment

samples obtained from the six locations were all below the Sediment Quality Standard (SQS) and the Cleanup Standard Level (CSL) for the tested analytes. It appears that a risk-based approach may be implemented in the future (by the EPA) in cleanup of the Duwamish River, with a specific reach of the river needing to exceed more than one cleanup criteria, or contain an exceedance of more than one contaminant to be considered a significantly contaminated area requiring remediation. Based upon the results of testing conducted thus far, it appears unlikely that cleanup would be undertaken in the portion of Slip #2 adjacent to the subject site. In that scenario, the perceived potential for impacts to operations at the subject site appear to be very low. This opinion is further reinforced by the fact that the property line for the subject site reportedly does not extend into the Slip #2 area in any event.

#### **CORRACTS**

Review of the current EPA Corrective Action Report (CORRACTS) listing revealed that three (3) CORRACTS sites are located within approximately one mile of the subject property that have been designated as having a potential release at the property under RCRA.

- 16) Great Western Chemical, 6900 Fox Avenue South, is a Large Quantity Generator of hazardous materials. In 1991, the site was categorized as "low priority" by the EPA, and by 1996, oversight was transferred to the State of Washington. This site is hydrologically cross-gradient in relation to the subject property approximately 2,600 feet to the southeast.
- 17) Burlington Environmental, 734 South Lucille Street, is a Large Quantity Generator (LQG) and a hazardous waste Treatment, Storage and Disposal (TSD) facility, which has been prioritized as "high." Releases have been reported to soil and groundwater, and work plans addressing the releases have been approved by the EPA. This site is hydrologically cross-gradient in relation to the subject property approximately 3,900 feet to the northeast.
- 18) General Electric - Aviation Division, 220 South Dawson Street, has been identified as having releases to soil and groundwater, and several remediation feasibility investigations have been received by the EPA. According to RCRA Permit events databases, this facility has been closed with the approval of the EPA ("clean closure" was accepted). This site is hydrologically cross-gradient in relation to the subject property approximately 3,800 feet to the north.

Considering the substantial separation distances and/or hydrologic positions of the listed RCRA CORRACTS sites in relation to the subject property as positive risk mitigation factors, it is our opinion that the potential for environmental impairment of the subject property from this source is very low.



**C&SCS** The Washington Department of Ecology hazardous waste cleanup and investigation program was launched in 1989 as a part of the Model Toxics Control Act (MTCA), Chapter 173-340 WAC, in order to evaluate potential and actual hazards at sites within the state. Of the more than 1,730 sites currently on the program list, twenty-seven (27) are located within a one mile radius of the subject property. The following fourteen (14) sites are located on the east side of the Duwamish Waterway and may present a greater threat for impacts to the property than those sites located west of the Duwamish River, which are listed later.

- 19) Franks Used Cars, 6305 East Marginal Way South, is a site of confirmed impacts to soil by metals PCBs and petroleum hydrocarbons. Impacts to surface water by petroleum hydrocarbons are also confirmed. Impacts to air, groundwater and sediment are suspected. Through our work at this nearby site in the early 1990s for a different client, we have learned that lead batteries were stored at this facility when it was a wrecking yard in the past, and that petroleum impacted soils at this facility extend to a depth of approximately 3 feet, and that sampling and testing of groundwater from a single monitoring well at the property identified no detectible concentrations of petroleum hydrocarbons. This facility was incorporated into the construction area of the recent northbound lanes of the First Avenue South bridge. Based upon this information, it would appear that this nearby contaminated site would present little potential for impacts to the subject property. This site is hydrologically up-gradient in relation to the subject property approximately 350 feet to the east-southeast.
- 20) Great Western Chemical, 6900 Fox Avenue South, is a site of confirmed impacts to soil and groundwater by volatile organic compounds (VOCs), petroleum hydrocarbons and polynuclear aromatic hydrocarbons (PAHs). This site is hydrologically cross-gradient in relation to the subject property approximately 2,600 feet to the southeast.
- 21) Emerald Tool Company, 6332 6<sup>th</sup> Avenue South, is a site of confirmed impacts to soil by metals, with impacts suspected by conventional inorganic contaminants, VOCs and corrosives. Impacts are also suspected by all contaminants to groundwater. This site is hydrologically cross- to up-gradient in relation to the subject property approximately 2,400 feet to the east.
- 22) Sahlberg Equipment, 5950 4<sup>th</sup> Avenue South, is a site of confirmed impacts to groundwater by petroleum hydrocarbons and metals, with impacts to surface water suspected. Impacts to soil by petroleum

hydrocarbons has been remediated. This site is hydrologically cross-gradient in relation to the subject property approximately 1,850 feet to the northeast.

- 23) Seattle City Light Georgetown Steamplant, 1300 South Greely Street (on Elizabeth Street) is a site of suspected impacts to unknown media by PCBs (likely soil and groundwater) and petroleum hydrocarbons. This site is hydrologically cross-gradient in relation to the subject property approximately 3,900 feet to the east.
- 24) General Electric - Aviation Division, 220 South Dawson Street, is a site of confirmed impacts to soil and groundwater by base-neutral contaminants, halogenated VOCs, and petroleum hydrocarbons. This site is hydrologically cross-gradient in relation to the subject property approximately 3,800 feet to the north.
- 25) Ace Radiator, 311 South Brandon Street, is a site of confirmed impacts to soil by petroleum hydrocarbons, with impacts suspected by VOCs and metals. Impacts are suspected to other unidentified media. This site is hydrologically cross-gradient in relation to the subject property approximately 3,250 feet to the north.
- 26) Pioneer Enamel Manufacture, 5531 Airport Way South, is a site of confirmed impacts to soil by metals with impacts to groundwater and surface water suspected. This site is hydrologically cross-gradient in relation to the subject property approximately 4,650 feet to the northeast.
- 27) Seattle Air National Guard - Boeing Field, 6736 Ellis Avenue South, is a site of confirmed impacts to soil by petroleum hydrocarbons, metals, and radioactive substances. Impacts to groundwater by radioactive materials is confirmed. This site is hydrologically cross- to up-gradient in relation to the subject property approximately 4,300 feet to the southeast.
- 28) Sternoff Metals, 7201 East Marginal Way South, is a site of confirmed impacts to soil by PCBs and metals, with impacts to groundwater confirmed by PCBs, metals, and petroleum hydrocarbons. Impacts are suspected to surface water by metals and PCBs. This site is hydrologically cross-gradient in relation to the subject property approximately 4,000 feet to the southeast.
- 29) Chemical Processors, 734 South Lucille Street (also the Burlington Environmental property), is a site of suspected impacts to soil and groundwater by metals, pesticides, petroleum hydrocarbons, VOCs,

reactive wastes, and corrosive wastes. This site is hydrologically cross-gradient in relation to the subject property approximately 3,900 feet to the northeast.

- 30) Boeing North Field, JP-4 Ranks, Ellis Avenue at East Marginal Way South, is a site of confirmed impacts to soil and groundwater by petroleum hydrocarbons. This site is hydrologically cross-gradient in relation to the subject property approximately 4,300 feet to the southeast.
- 31) Longview Fibre Company, 5901 East Marginal Way South, is a site of confirmed impacts to soil, groundwater, air and surface water by petroleum hydrocarbons, and PAHs, with impacts to air, groundwater and surface water confirmed by base-neutral contaminants. This site is hydrologically cross-gradient in relation to the subject property approximately 1,050 feet to the north.
- 32) James Hardie Gypsum, 5931 East Marginal Way South, is a site of confirmed impacts to soil and groundwater by metals. This site is hydrologically cross-gradient in relation to the subject property approximately 800 feet to the north.

The following thirteen (13) sites are located across the Duwamish Waterway from the subject property are perceived to represent a relatively low risk for impacts to the subject property, since these facilities are not "hydrologically connected" to the subject site.

- 33) Duwamish Shipyard, Inc., 5658 West Marginal Way Southwest
- 34) Lone Star Northwest, 5900 East Marginal Way South (across Slip #2)
- 35) M&T Chemicals, Inc., 6000 West Marginal Way Southwest
- 36) First Avenue South Bridge Landfill, 7700 Block 2<sup>nd</sup> Avenue Southwest
- 37) West Coast Equipment, Inc., 7777 Detroit Avenue Southwest
- 38) Bayside Disposal Company, 7201 West Marginal Way Southwest
- 39) West Coast Equipment #2, 7746 Detroit Avenue Southwest
- 40) Waste Management of Seattle, 7201 West Marginal Way Southwest
- 41) Northwest Cooperage Company, Inc., 7152 1<sup>st</sup> Avenue South
- 42) Eastern Supply Company, 7745 1<sup>st</sup> Avenue South
- 43) South Park Landfill, South of S Kenyon St., west of Highway 99
- 44) Duwamish River Slip #4, East of South Holden on the Duwamish River
- 45) Northwest Enviroservice 2W, 1<sup>st</sup> Ave. SW at W Marginal Way South

The approximate locations of the WDOE-listed C&SCS sites within a one mile radius of the subject property are indicated by the blue hexagonal symbol on the Vicinity Map attached to this report as Plate 1, with their locations identified by the number preceding each site above.

**TSD/RCRA/  
FINDS**

Review of the EPA's Treatment, Storage and Disposal (TSD) facilities listing for sites that treat, store or dispose of potentially hazardous materials revealed that one (1) TSD facility is located within a one mile radius of the subject property.

- 46) Burlington Environmental, Inc., 734 South Lucille Street, was discussed in several of the preceding sections of this report. This site is hydrologically cross-gradient in relation to the subject property approximately 3,900 feet to the northeast.

Review of the EPA's Facility Index System (FINDS) listing revealed two (2) sites adjacent to the subject property which are or were regularly monitored by EPA/WDOE for the use or generation of small amounts of hazardous substances as a normal part of their business activities. The subject property was not listed in this database. These sites are listed in the table below.

Map ID	Company & Address	Regulatory Agency	Generator Code
47	Burgess Enterprises 6361 1 <sup>st</sup> Avenue South	RCRIS	NG
48	Lone Star Northwest, Inc. 5975 East Marginal Way South	RCRIS	2
Regulatory Agency: RCRIS RCRA Listing			
Generator Code: SQG Small quantity generator, 100-1,000 kilograms per month of hazardous waste.			
CESQG Conditionally Exempt Small Quantity Generator, less than 100 kilograms per month of hazardous waste.			
NG Business has withdrawn or canceled its generator site ID number.			

We reviewed the WDOE files for the adjacent sites (47 and 48 in the table above) at the Northwest Regional Offices of the Department of Ecology. A summary of the information in the files is presented below. Please note that no file was available for Burgess Enterprises. Through our work at that adjacent site for a different client, we have learned that Burgess Enterprises obtained a generator site ID number in June 1992 for the one-time disposal of 410 pounds of flammable liquid containing toluene and ethyl acetate, 190 pounds of flammable liquid containing methyl ethyl ketone and toluene, 290 pounds of waste liquid containing lead, and 450 pounds of solid wastes. These wastes were apparently generated during the cleaning of the underground storage tank prior to decommissioning of the UST (by removal) at this adjacent property in 1992. The site ID was withdrawn by Burgess Enterprises in July 1993. No potential for impacts to the subject property is envisioned by this one-time generation of a small quantity of hazardous materials at the adjacent Burgess Enterprises facility.

Lone Star Northwest, Inc., located on the adjacent property to the north of the subject property. The cement plant is located across Slip #2 from the subject property and therefore represent a relatively low risk for impacts to the subject property.

Businesses named in the FINDS listing are users or generators of potentially hazardous or toxic materials as a normal aspect of their business practices. Listed businesses are required to closely monitor and report their use or generation of such materials to the EPA.

Based upon this information, upon the monitoring and reporting requirements imposed by the EPA, and upon the presumption that the above-mentioned adjacent user/generators exercise prudence in management of these materials to minimize liability and EPA penalties, it is our opinion that the potential for environmental impairment of the subject property from these adjacent and nearby sources is very low.

The approximate locations of the nearby EPA RCRA Generator sites are indicated on the Vicinity Map attached to this report as Plate 1, with their locations on Plate 1 identified by the Map ID number given in the table above.

**ERNS** Review of the EPA's Emergency Response Notification Systems (ERNS) list for the State of Washington revealed that the subject site has not reported a spill. This list has been compiled with periodic updates since October 1987.

### LANDFILLS

A review of King County Health Department documents regarding current and abandoned landfills revealed that there is one (1) documented landfill located within a mile radius of the subject property:

- South Park abandoned landfill, which occupies approximately 40 acres between highways 509 and 99 immediately south and north of South Kenyon Street.

The South Park Landfill began operation in approximately 1945, and was converted into a solid waste transfer station in 1966. Reported usage for this site included a location for waste sawdust disposal from the several mills located nearby at that time, and as a "burning dump" used by the City of Seattle as one of their key disposal sites. The proximity to the South Park industrial district and the time span that this dump was operational, may indicate the potential that industrial wastes are also buried at this site. This site is hydrologically separated from the subject property by the Duwamish River/Waterway approximately 4,000 feet to the south. The location of the South Park abandoned landfill is indicated on the Vicinity Map, Plate 1, attached to this report.

Conclusions of a study performed by the Seattle-King County Department of Public Health in 1986 were that "no significant methane gas levels were observed around the true perimeter of the landfill site", and, in 1989 the site was given a status of "no further action." The site is currently being used by several businesses including the Seattle South Park Transfer Station. Given the results of the earlier study and the "no further action" status assigned to this landfill, even though impacts to groundwater which have apparently not been fully assessed by any regulatory agency to date, but yet have been confirmed by WDOE (see the C&SCS section above), considering that this landfill lies across the Duwamish Waterway from the subject property, it would appear that the potential for impacts to the subject site from this source would be "low."

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## CONCLUSIONS/RECOMMENDATIONS

As discussed in the executive summary of the cover letter to this report, relying solely upon the available information reviewed or otherwise developed in the course of our study, the following conditions of potential environmental significance were identified at the subject property:

- Presence of asbestos containing sink undercoating and roof sealant.
- Unknown/unassessed environmental character/composition of fill material at the property from undocumented sources, possibly including material dredged from the adjacent Duwamish Waterway/Slip #2 or other "suspect" sources.
- Unknown/unassessed impacts (if any) relating to historic use of the property by a fuel company for a period of approximately 20 years.

Momentarily excluding the above-noted conditions and/or uncertainties, there is no evidence in the public record to suggest that the subject property has been exposed to the risk of contamination by potentially dangerous, hazardous, or toxic substances, or that such substances as defined under the Resource Conservation and Recovery Act (RCRA-42 USC-6901, et seq.), the Federal Water Pollution Control Act (33 USC 1257, et seq.), the Clean Air Compensation and Liability Act (42 USC 2001, et seq.), the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA: 42 USC 9601, et seq.), and the Dangerous Waste Regulations of the State of Washington, Chapter 173-303 WAC, have been disposed of on the property.

### ASBESTOS

Borrowing evaluation criteria adopted under the Asbestos Health Emergency Response Act (AHERA, 40 CFR Part 763), the asbestos-containing materials are in "good" condition. In the current use and condition, the materials pose no threat to public health or to the environment. No action would be required under current state or federal regulations.

To reduce exposure to potential future liability, it may be prudent to consider implementation of a management policy whereby all maintenance, repair, or service personnel who may be engaged to work on the property are formally advised (i.e., signed acknowledgment) as to the "suspected" presence of asbestos-containing materials (ACM) prior to commencement of any work associated with the ACM.

Should the owner intend to renovate, demolish, remodel, or repair any or all portions of the structure containing asbestos, please note that applicable sections of WAC 296-65 require that all projects relating to construction, demolition, repair, or maintenance where release or likely release of asbestos fibers into the air could occur must be performed by "certified asbestos workers". Additional information may be obtained through the offices of Environmental Associates, Inc., or directly from the Washington State Department of Labor and Industries, P.O. Box 207, Olympia, Washington 98504.

#### **HISTORIC LAND USE/UNDOCUMENTED FILL**

As mentioned at length throughout this report, review of historic aerial photographs and maps suggests that fill materials have been emplaced at the property from undocumented sources since straightening of the Duwamish River/Waterway prior to 1920. In 1971, the property owner was cited by the City of Seattle for placing fill on the subject property without first obtaining a Fill and Grading permit. Also, Lot 6 of the property was occupied by a fuel company from since at least the late 1940s until the mid to late 1960's.

Assessment of subsurface soil and/or groundwater conditions cannot be accomplished through visual examination of surficial conditions afforded by the scope of our Level 1 assessment effort. Considering this limitation, potential risks posed to the site environment posed by the existing fill and/or historic industrial use of the property cannot be dismissed out of hand. This uncertainty is not unique to the subject property, and similar uncertainties likely exists for many sites along the Duwamish Waterway or at other areas in the industrial core of Seattle.

If the owner and/or lender requires some degree of confidence regarding the environmental quality of soils at the property, surficial and subsurface sampling and laboratory testing of soil and/or groundwater in the form of several backhoe test pit excavations and/or borings/wells could be employed to make a reliable determination. Decision-making authority in this regard clearly lies with the owner and/or lender, depending upon their individual risk tolerances.

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## LIMITATIONS

This report has been prepared for the exclusive use of American Life, Inc. along with Mr. Henry Liebman and their several representatives for specific application to this site. Our work for this project was conducted in a manner consistent with that level of care and skill normally exercised by members of the environmental science profession currently practicing under similar conditions in the area, and in accordance with the terms and conditions set forth in our proposal dated March 9, 2000. The condition of subsurface soil and/or groundwater and/or sediment cannot typically be determined by visual examination of surficial conditions such as those afforded by a Phase I assessment such as performed here. Acknowledging that limitation, no warranty in that regard is made. No other warranty, expressed or implied, is made. If new information is developed in future site work which may include excavations, borings, studies, etc., Environmental Associates, Inc., must be retained to reevaluate the conclusions of this report and to provide amendments as required.



